tor, Botanical Survey of India, Southern Circle, Coimbatore, India for his valuable contribution, to Indian Botany.

### ACKNOWLEDGEMENTS

We wish to express our thanks to the Deputy Director, Botanical Survey of India, Cent<sup>r</sup>al National Herbarium, Howrah for his valuable comments on this taxon. Our thanks are also due to Dr. V. J. Nair for latin diagnosis, Dr. A. N. Henry, Regional Botanist for his valuable suggestions, to the Director, Botanical Survey of India, Howrah and Joint Director, Botanical Survey of India, Southern Circle, Coimbatore for their constant encouragement during this investigation.

## DESCRIPTIONS OF THREE NEW SPECIES OF GONATOCERUS NEES (HYMENOPTERA: MYMARIDAE) FROM ALIGARH (INDIA)<sup>1</sup>

### S. M. SHAMIM<sup>2</sup> AND S. ADAM SHAFEE<sup>3</sup> (With ten text-figures)

Three new species of *Gonatocerus* Nees (*G. alami* sp. nov., *G. aligarhensis* sp. nov., and *G. terebrator* sp. nov.,) are described and illustrated. Types deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

Gonatocerus alami sp. nov. (Figs. 1-3)

#### FEMALE

Head brownish; antennae inserted much above lower level of eyes; malar sutures distinct; malar space about one-half the eye width; mandibles tridentate; eyes dark and sparsely setose. Antennae (fig. 1) yellowish; radicle cylindrical, slightly more than one-half the length of scape; scape slightly dilated, slightly less than three times as long as wide, distinctly shorter than following three segments together; pedicel less than twice as long as wide, distinctly longer than first funicle segment; funicle segment first longest, twice as long as wide, segments second and third subequal, each

<sup>1</sup> Accepted June 1982.

<sup>2</sup> Department of Zoology, Ranchi University, Ranchi, India.

<sup>3</sup> Department of Zoology, Aligarh Muslim University, Aligarh, India.

slightly more than twice as long as wide, segments fourth, seventh and eighth subequal in length, each one and a half times as long as wide; club entire, slightly more than three times as long as wide, as long as preceding four funicle segments together.

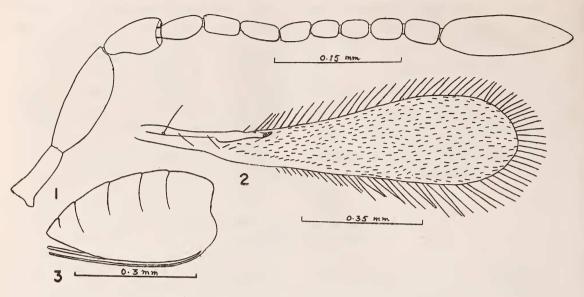
Thorax dark brown. Fore wings (fig. 2) hyaline, long and narrow, about four times as long as wide; marginal vein shorter than submarginal vein, postmarginal vein absent, stigmal vein developed; marginal fringe about one half of wing width. Hind wings hyaline, very long and narrow; marginal fringe seven times the wing width. Legs orange yellow; fore tibial spur curved; tarsi 5-segmented.

Abdomen (fig. 3) brownish, slightly longer than thorax; ovipositor unexserted, arising from base of abdominal venter.

Body length: 0.88 mm.

*Comments*: This new species is closely allied to *G. uttarodeccanus* Mani & Saraswat, 1973 but differs from it in having body mostly yellow, unexserted condition of ovipositor and

#### JOURNAL, BOMBAY NATURAL HIST. SOCIETY, Vol. 80



Figs. 1-3. Gonatocerus alami sp. nov.,  $\varphi$ : (1) antenna; (2) Fore wing; (3) Abdomen. in lateral view.

funicle segments 2-4 less than three times as long as wide.

Holotype 9, INDIA: Uttar Pradesh, Aligarh, on grass, 15.8.1980 (S. M. Shamim).

This species is named after Prof. S. Mashhood Alam, in recognition of his contributions to our knowledge of insect morphology and taxonomy.

## Gonatocerus aligarhensis sp. nov. (Figs. 4-7)

### FEMALE

G. aligarhensis sp. nov., resembles G. alami sp. nov., except in the following characters:

Antennae (fig. 4) Brownish; scape longer than following three segments together; pedicel as long as following two funicle segments together; funicle segments 1-4 subequal in length, each one and a half times as long as wide, fifth twice as long as wide; club slightly shorter than preceding four segments together.

Fore wings (fig. 5) with marginal fringe slightly more than one-half of wing width; legs brownish, basitarsi of fore legs (fig. 6) curved.

Abdomen (fig. 7) with ovipositor arising from basal one-third of abdominal venter.

Body length: 0.68 mm.

*Comments*: This new species is closely related to *G. alami* sp. nov., but differs by the characters given above.

Holotype Q, INDIA: Uttar Pradesh, Aligarh, 15.8.1980 (S. M. Shamim).

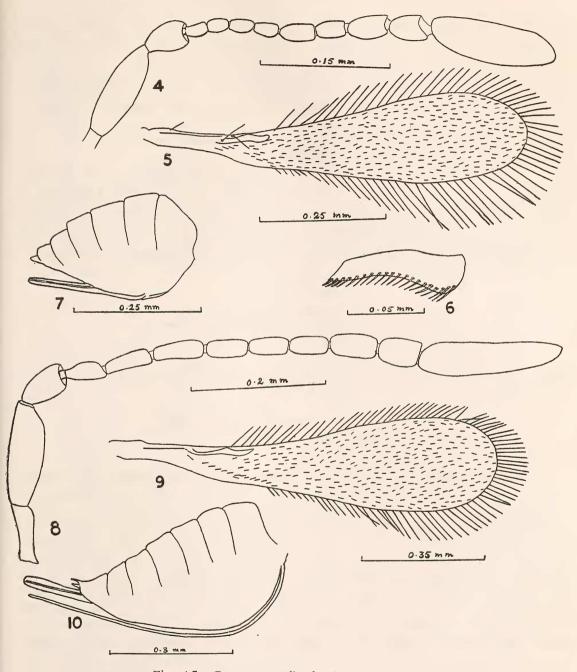
# Gonatocerus terebrator sp. nov. (Figs. 8-10)

### FEMALE

G. terebrator sp. nov. resembles G. alami sp. nov. except in the following characters:

Antennac (fig. 8) brownish except radicle, scape and pedicel yellowish; first, fourth, fifth

### NEW DESCRIPTIONS



Figs. 4-7. Gonatocerus aligarhensis sp. nov., 9: (4) Antenna; (5) Fore wing; (6) Basitarsus of fore leg; (7) Abdomen, in lateral view. Figs. 8-10. Gonatocerus terebrator sp. nov., 9:

(8) Antenna; (9) Fore wing; (10) Abdomen, in lateral view.

and sixth funicle segments subequal in length, each about twice as long as wide, segments second, third and seventh subequal in length; club four and a half times as long as wide, shorter than preceding four segments together.

Fore wings (fig. 9) with marginal fringe distinctly shorter than one-half the wing width.

Abdomen (fig. 10) brownish; distinctly longer than thorax; ovipositor exserted, exserted part of ovipositor one-fourth the length of abdomen.

Body length: 0.94 mm.

Comments: The new species is closely allied to G. munnarus Mani & Saraswat, 1973 but differs from it in having the scape shorter than

pedicel and following two segments together, funicle segment first shorter than second, and sixth shorter than seventh.

Holotype  $\mathcal{Q}$ , INDIA: Uttar Pradesh, Aligarh, on grass, 15.8.1980 (S. M. Shamim).

Paratype 9 (same data as for holotype).

#### ACKNOWLEDGEMENTS

We are deeply indebted to Prof. S. Mashhood Alam, the then Head, Department of Zoology, for providing necessary facilities. Thanks are also due to Prof. N. H. Khan, Chairman, Department of Zoology, Aligarh Muslim University, Aligarh for encouragement.

#### REFERENCE

MANI, M. S. & SARASWAT, G. G. (1973): On some chalcidoidea from India, family Gonatoceridae. *Mem. School. Ent. St. John's College*, Agra, 2: 78-125.

## DIMERIA KERALAE (POACEAE) — A NOVELTY FROM KERALA, INDIA<sup>1</sup>

# N. C. NAIR, P. V. SREEKUMAR AND V. J. NAIR<sup>2</sup> (With sixteen text-figures)

#### Dimeria keralae sp. nov.

Dimeria santapaui Almeida affinis, sed vaginis carinatis; racemis 2, inequalibus, intervolubilibus; spiculis parvioribus (c. 4.5 mm); callo longo, acute cuneato, indumento aureo; glumis parvioribus; gluma inferna apice alato; gluma supera non nisi apice alato; flosculo supero paleato, differt.

Annuals. Culms 10-30 cm tall, erect, slender, purplish; nodes bearded. Leaves 2-5 cm long

<sup>2</sup> Botanical Survey of India, Coimbatore-641 003, India.

and 1-2 mm broad, linear-lanceolate, glabrous or covered with a few tubercle-based hairs along the margins; mid rib prominent. Sheaths 2-6 cm, shorter than the internodes, keeled, loose, glabrous. Ligule a thin ovate membrane. Racemes 2, each 2-5 cm long, usually unequal and inter-wined. Rhachis c. 0.25 mm wide, flat on one side, angular on the other side, glabrous. Spikelets 4-5 mm long, oblanceolate, cuneate at base, distant and pedicelled. Pedicels 1-1.5 mm, joints extremely oblique. Callus 1-2 mm long, extremely acute at base, covered with golden — yellow hairs 1-1.5 mm long. Lower glumes 3.5-4 x 0.75-1 mm, oblong — linear, slightly emarginate and hyaline

<sup>&</sup>lt;sup>1</sup> Accepted September 1982.